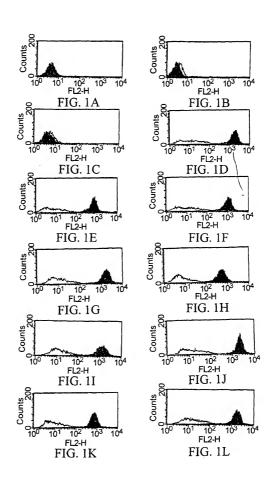
0

AILIM



Matter No.: 14539-006002 Page 2 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

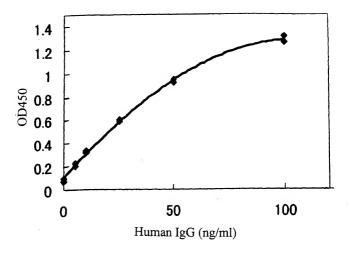


FIG. 2

Matter No.: 14539-006002 Page 3 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONCCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

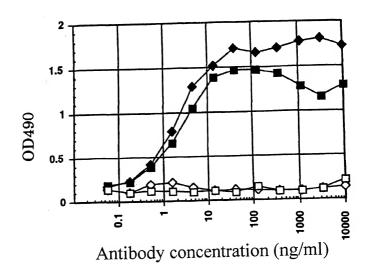
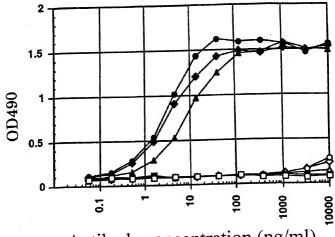


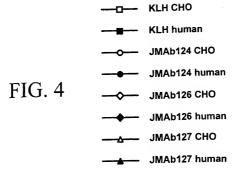
FIG. 3

Matter No.: 14539-006002 Page 4 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A

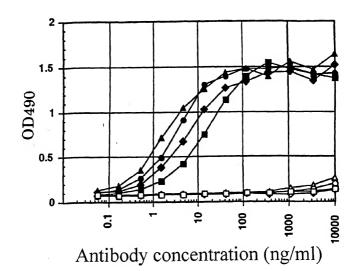
HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

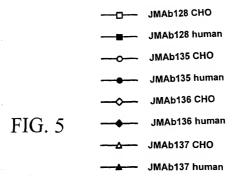


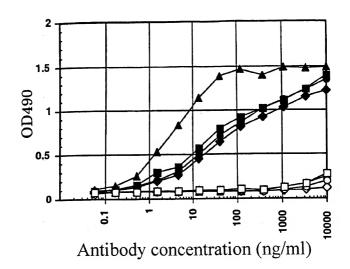
Antibody concentration (ng/ml)

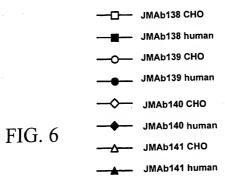


Matter No.: 14539-006002 Page 5 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

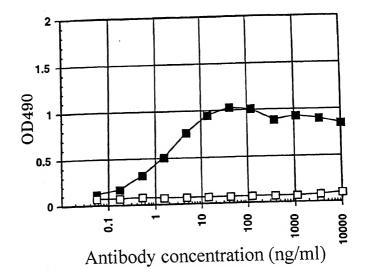








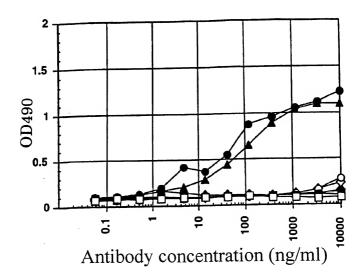
Matter No.: 14539-006002 Page 7 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

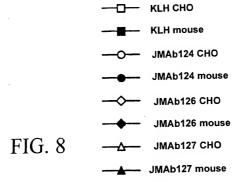


\_\_\_\_\_ B10.5 mouse

FIG. 7

Matter No.: 14539-006002 Page 8 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

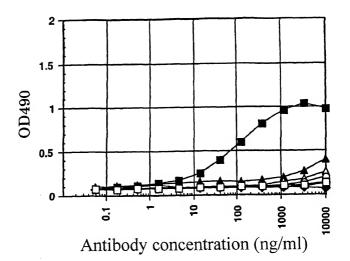




Matter No.: 14539-006002 Page 9 of 78 Applicant(s): Takashi Tsuji et al.

HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE



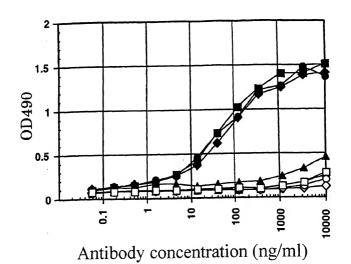


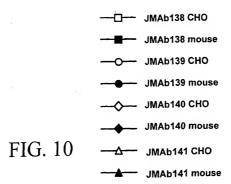


Matter No.: 14539-006002 Page 10 of 78 Applicant(s): Takashi Tsuji et al.

HUMAN MONOCLONAL ANTIBODY AGAINST A

COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE





Matter No.: 14539-006002 Page 11 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

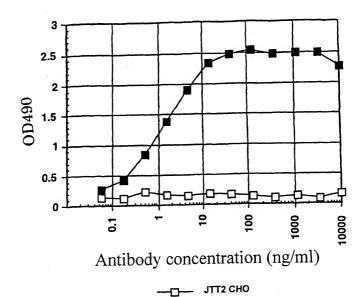
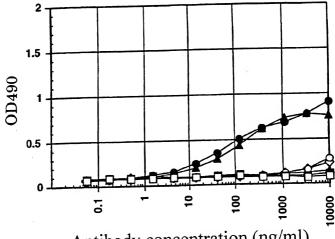


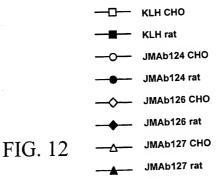
FIG. 11

JTT2 rat

Matter No.: 14539-006002 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

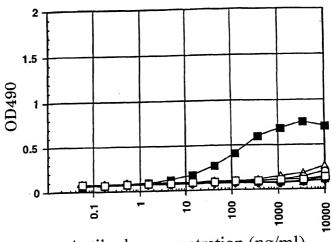


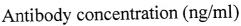
Antibody concentration (ng/ml)

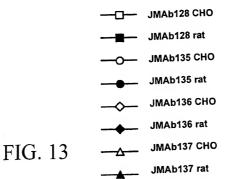


Matter No.: 14539-006002 Page 13 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

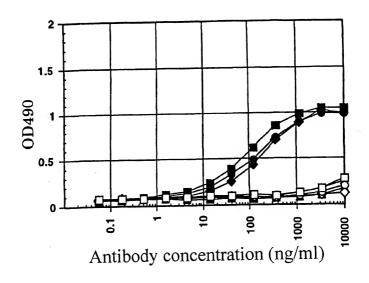
AILIM

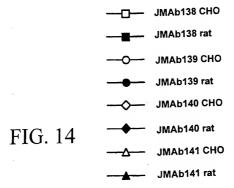






Matter No.: 14539-006002 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM





Matter No.: 14539-006002 Page 15 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

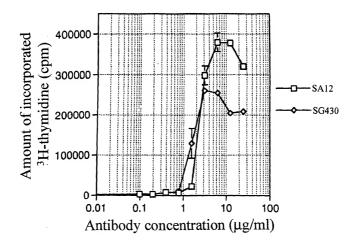


FIG. 15

Matter No.: 14539-006002 Page 16 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

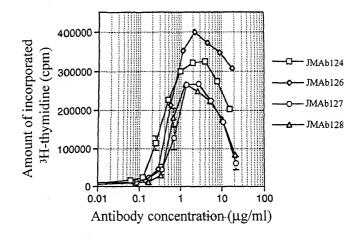


FIG. 16

Matter No.: 14539-006002 Page 17 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIIMULATORY SIGNAL TRANSDUCTION MOLECULE All IM

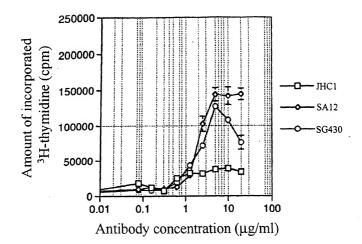


FIG. 17

Matter No.: 14539-006002 Page 18 of 78 Applicant(s): Takashi Tauji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

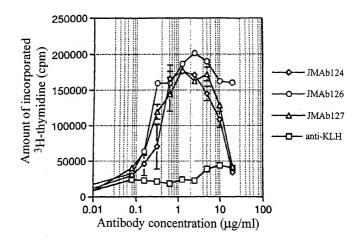


FIG. 18

Matter No.: 14539-006002 Page 19 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

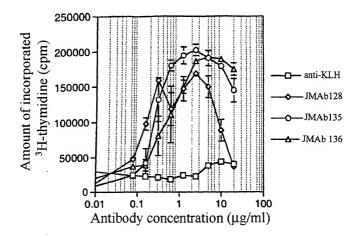


FIG. 19

Matter No.: 14539-006002 Page 20 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

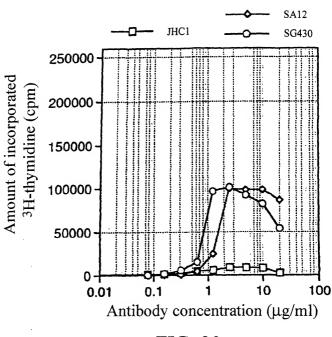


FIG. 20

Matter No.: 14539-006002 Page 21 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A

HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE
AILIM

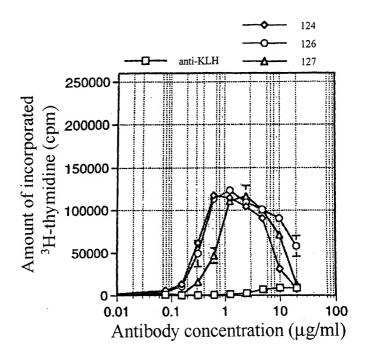


FIG. 21

Matter No.: 14539-006002 Page 22 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE All IM

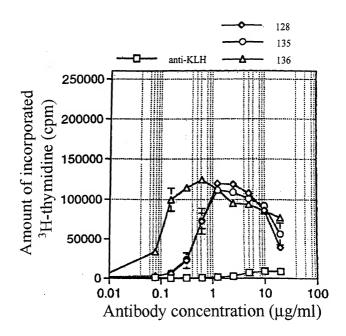


FIG. 22

Matter No.: 14539-006002 Page 23 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

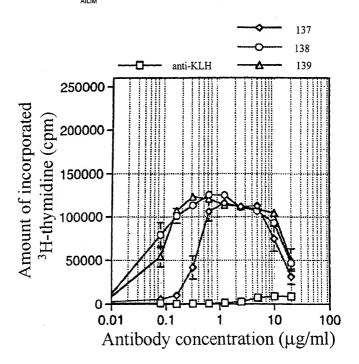


FIG. 23

Matter No.: 14539-006002 Applicant(s): Takashi Tsuji et al.

HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

Page 24 of 78

AILIM

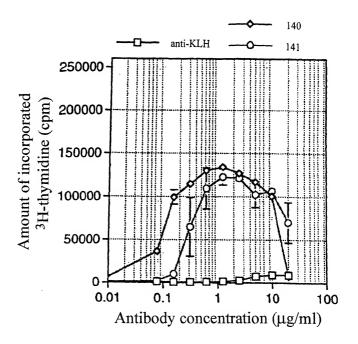


FIG. 24

Matter No.: 14539-006002 Page 25 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

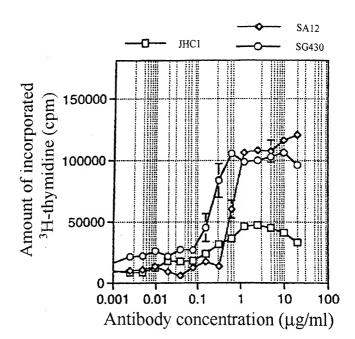


FIG. 25

Matter No.: 14539-006002 Page 26 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONCCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

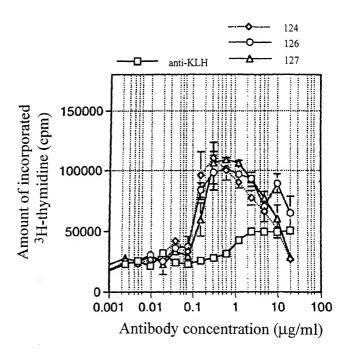


FIG. 26

Matter No.: 14539-006002 Page 27 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

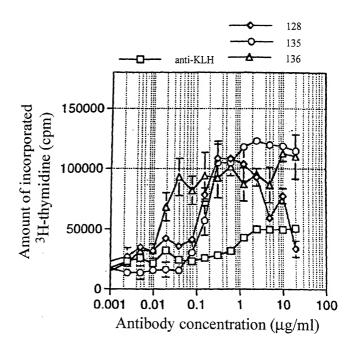


FIG. 27

Matter No.: 14539-006002 Page 28 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

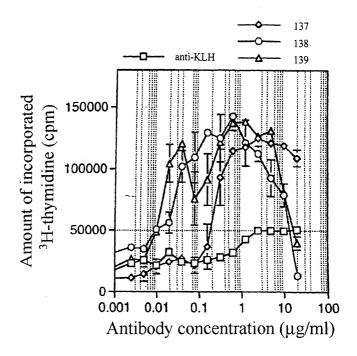


FIG. 28

Matter No.: 14539-006002 Page 29 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

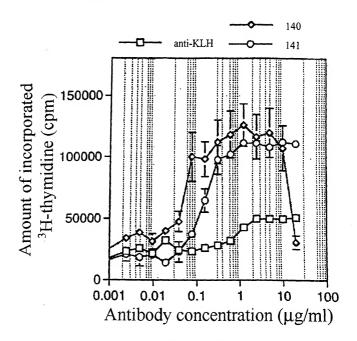


FIG. 29

Matter No.: 14539-006002 Page 30 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

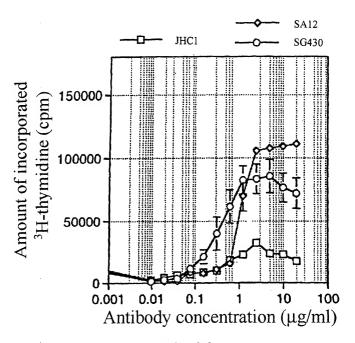


FIG. 30

Matter No.: 14539-006002 Page 31 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

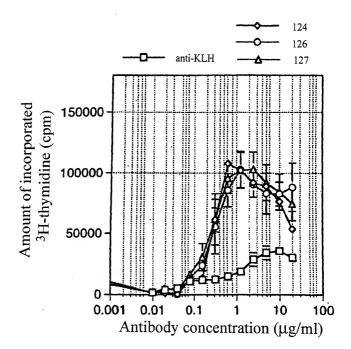


FIG. 31

Matter No.: 14539-006002 Page 32 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

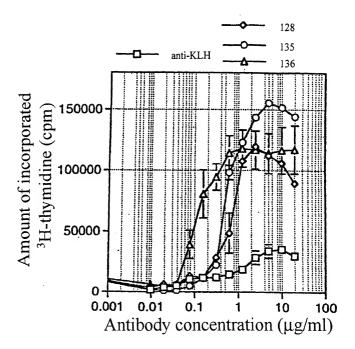


FIG. 32

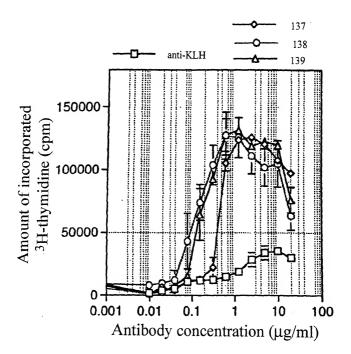


FIG. 33

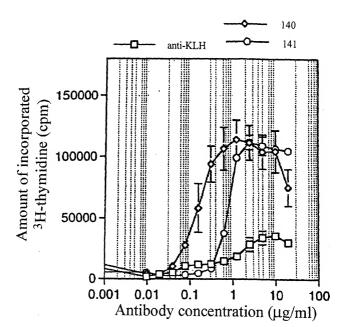


FIG. 34

Matter No.: 14539-006002 Page 35 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

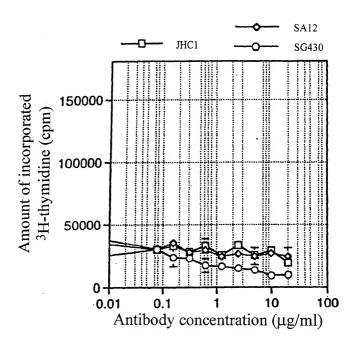


FIG. 35

Matter No.: 14539-006002 Page 36 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

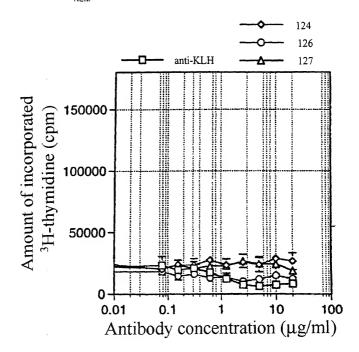


FIG. 36

Matter No.: 14539-006002 Page 37 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

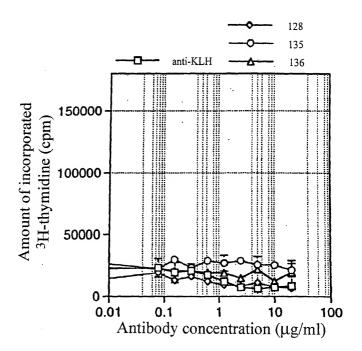


FIG. 37

Matter No.: 14539-006002 Page 38 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

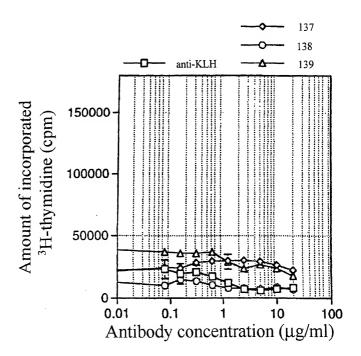


FIG. 38

Matter No.: 14539-006002 Page 39 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

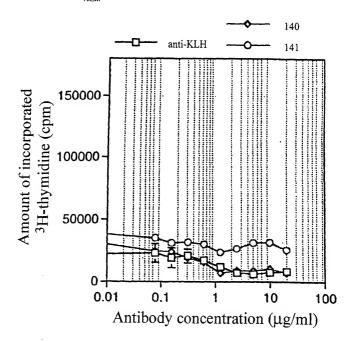


FIG. 39

Matter No.: 14539-006002 Page 40 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

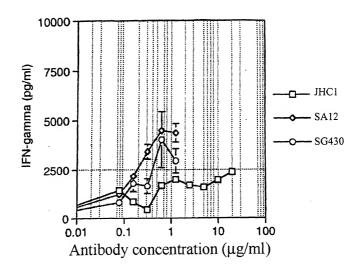


FIG. 40

Matter No.: 14539-006002 Page 41 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

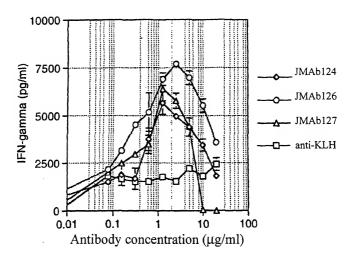


FIG. 41

Matter No.: 14539-006002 Page 42 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE All IM

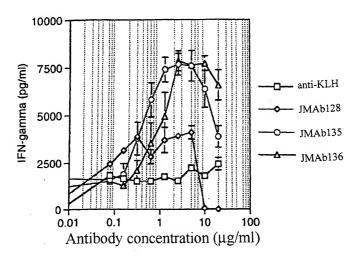


FIG. 42

Matter No.: 14539-006002 Page 43 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

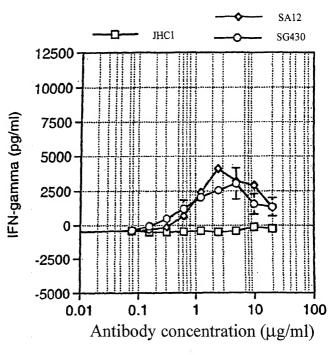


FIG. 43

Matter No.: 14539-006002 Applicant(s): Takashi Tsuji et al. Page 44 of 78

HUMAN MONOCLONAL ANTIBODY AGAINST A

COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

AILIM

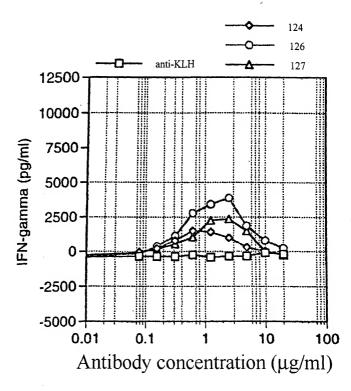


FIG. 44

Matter No.: 14539-006002 Page 45 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

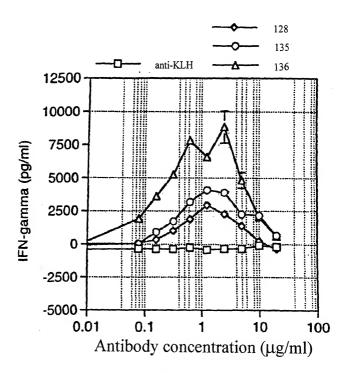


FIG. 45

Matter No.: 14539-006002 Page 46 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

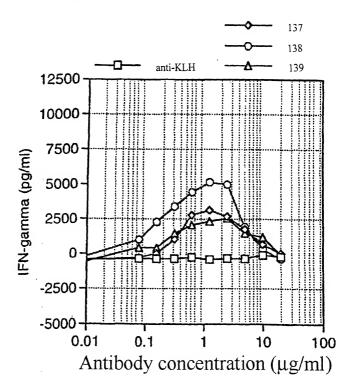


FIG. 46

Matter No.: 14539-006002 Page 47 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTINULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

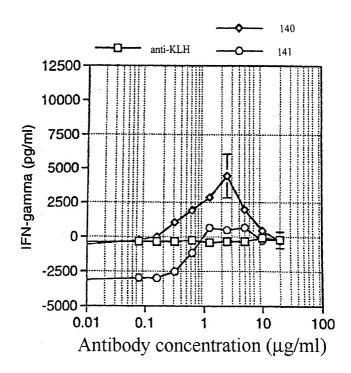


FIG. 47

Matter No.: 14539-006002 Page 48 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE
ALLIM

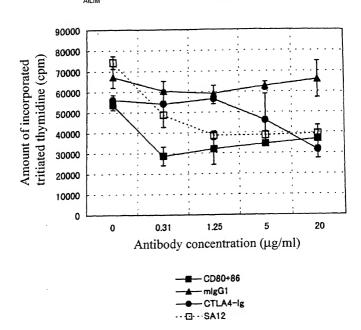


FIG. 48

Matter No.: 14539-006002 Page 49 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

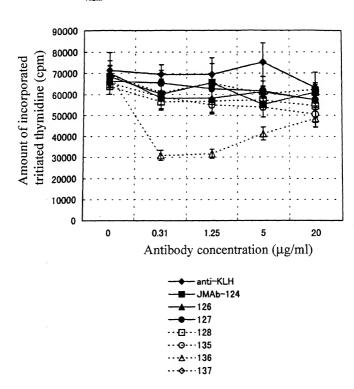


FIG. 49

Matter No.: 14539-006002 Page 50 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

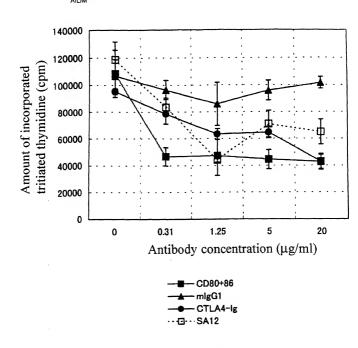


FIG. 50

Matter No.: 14539-006002 Page 51 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A

COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE
AILIM

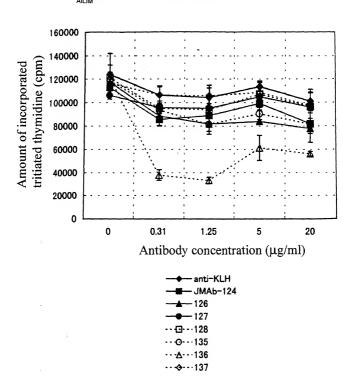


FIG. 51

Matter No.: 14539-006002 Page 52 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

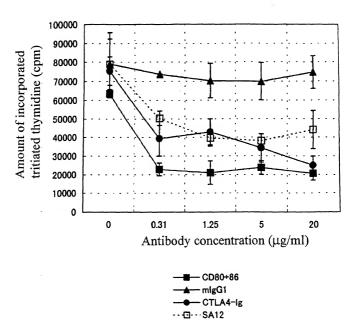


FIG. 52

Matter No.: 14539-006002 Page 53 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

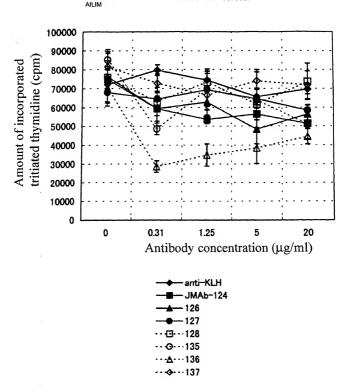
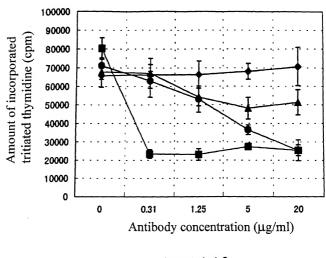


FIG. 53

Matter No.: 14539-006002 Page 54 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE



CD80+86 Ab

-▲-SA12

FIG. 54

Matter No.: 14539-006002 Page 55 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALILIM

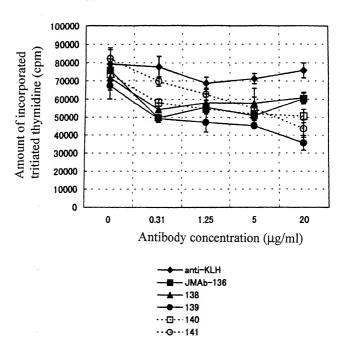
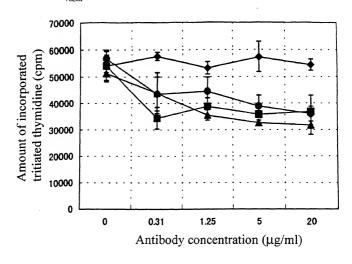


FIG. 55

Matter No.: 14539-008002 Page 56 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM



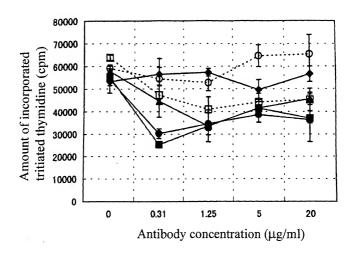
→ control mlgG

-<u>-</u> SA12

-CTLA4-Ig

FIG. 56

Matter No.: 14539-006002 Page 57 of 78 Applicant(s): Taksahi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM



-- anti-KLH
-- JMAb-136
-- 138
-- 139
-- 140
-- 9--141

FIG. 57

Matter No.: 14539-006002 Page 58 of 78 Applicant(s): Takashi Tsuji et ai. HUMAN MONCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

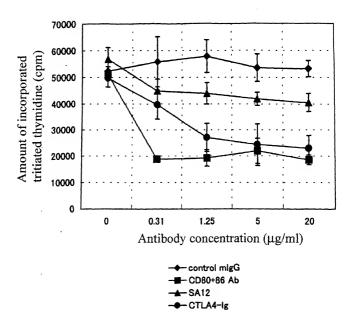


FIG. 58

Matter No.: 14539-006002 Page 59 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

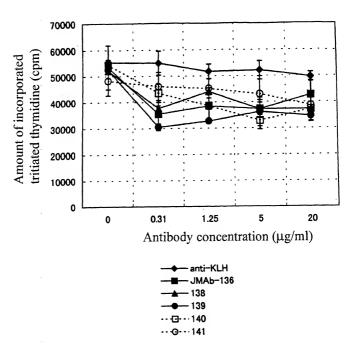


FIG. 59

Matter No.: 14539-006002 Page 60 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

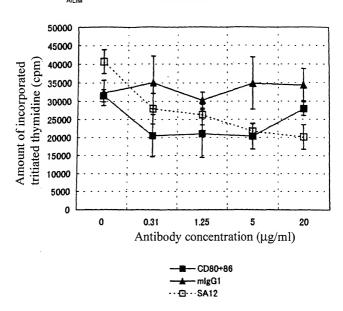


FIG. 60

Matter No.: 14539-006002 Page 61 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

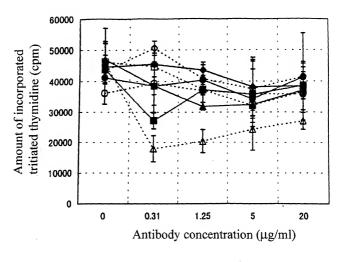




FIG. 61

Matter No.: 14539-006002 Page 62 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

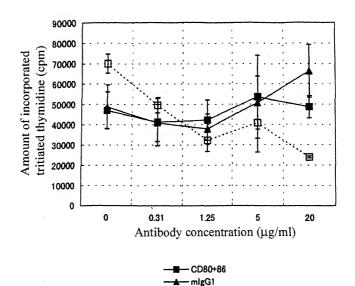


FIG. 62

---- SA12

Matter No.: 14539-006002 Page 63 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

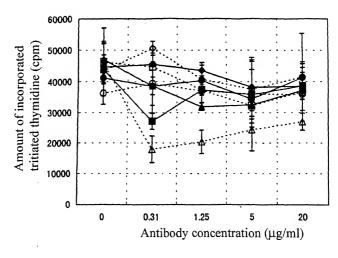




FIG. 63

Matter No.: 14539-006002 Page 64 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONCCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

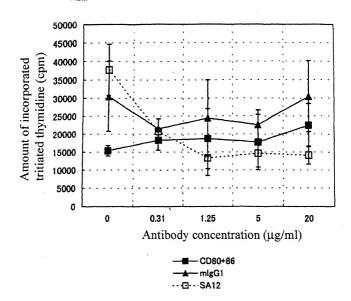


FIG. 64

Matter No.: 14539-006002 Page 65 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

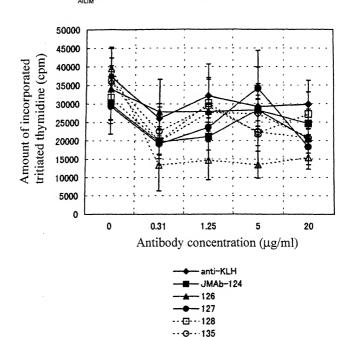


FIG. 65

···Δ···136 ···◆···137 Matter No.: 14539-006002 Page 66 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

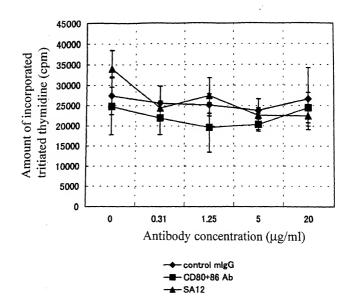


FIG. 66

Matter No.: 14539-006002 Page 67 of 78
Applicant(s): Takashi Tsuji et al.
HUMAN MONOCLONAL ANTIBODY AGAINST A
COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE
All IIAA

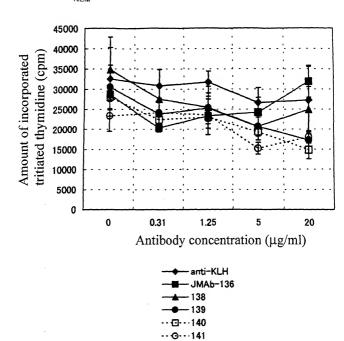


FIG. 67

Matter No.: 14539-006002 Page 68 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM

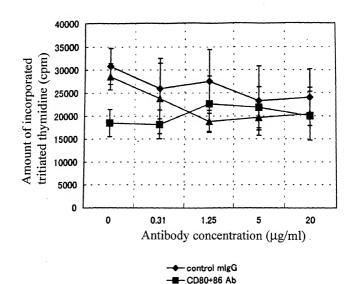


FIG. 68

-A-SA12

Matter No.: 14539-006002 Page 69 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALILIM

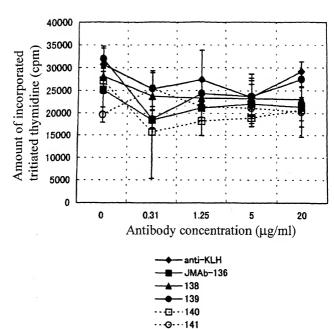
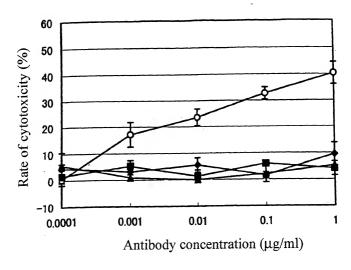


FIG. 69

Matter No.: 14539-006002 Page 70 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE ALLIM



-O- OKT-3

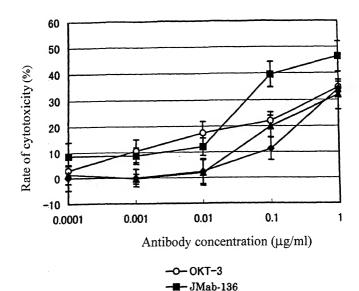
-- JMab-136

-▲- JMab-138

→ JMab-139

FIG. 70

Matter No.: 14539-006002 Page 71 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE



→ JMab-139

FIG. 71

-▲- JMab-138

Matter No.: 14539-006002 Page 72 of 78 Applicant(s): Takashi Tsuji et al.

HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

AILIM

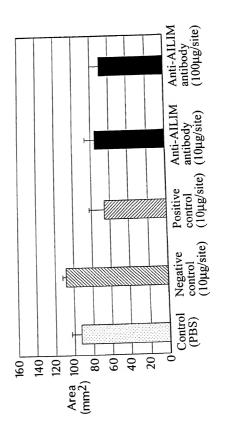


FIG. 72

Matter No.: 14539-006002 Page 73 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE All IIM

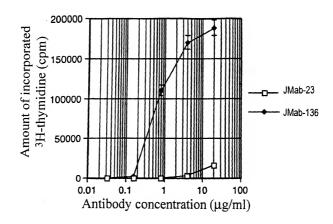
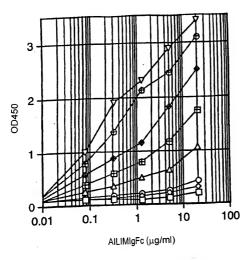


FIG. 73

Matter No.: 14539-006002 Page 74 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE



## Coated amount of B7hIgFc

------ 0 ng/well-B7hlgFc

25 ng/well-B7hlgFc

50 ng/well-B7hlgFc

200 ng/well-B7hlgFc

\_\_\_\_\_ 400 ng/well-B7hlgFc

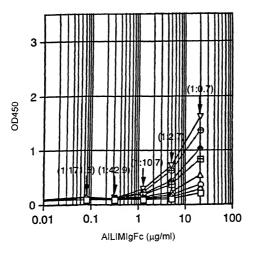
800 ng/well-B7hlgFc

1600 ng/well-B7hlgFc

FIG. 74

Matter No.: 14539-006002 Page 75 of 78

Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM



## Coated amount of B7hIgFc

|               | 0 ng/well-B7hlgFc    |        |
|---------------|----------------------|--------|
| <del></del>   | 25 ng/well-B7hlgFc   |        |
|               | 50 ng/well-B7hlgFc   |        |
| <u>~</u> ∆    | 100 ng/well-B7hlgFc  | FIG. 7 |
|               | 200 ng/well-B7hlgFc  |        |
| -             | 400 ng/well-B7hlgFc  |        |
| —⊕—           | 800 ng/well-B7hlgFc  |        |
| <del></del> ∇ | 1600 ng/well-B7hlgFc |        |

Matter No.: 14539-006002 Page 76 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONCCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE

AILIM

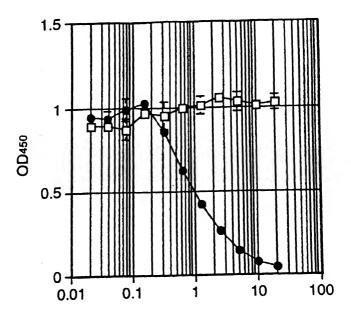


FIG. 76

Matter No.: 14539-006002 Page 77 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

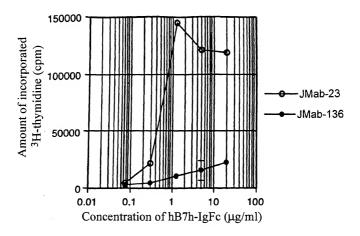


FIG. 77

Matter No.: 14539-006002 Page 78 of 78 Applicant(s): Takashi Tsuji et al. HUMAN MONOCLONAL ANTIBODY AGAINST A COSTIMULATORY SIGNAL TRANSDUCTION MOLECULE AILIM

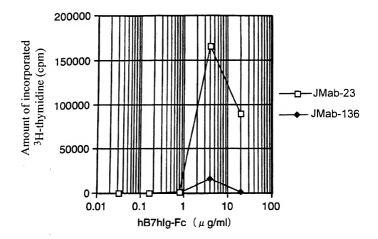


FIG. 78